

REMARKS

The Examiner has required Applicant to elect a set of claims for prosecution on the merits under 35 U.S.C. 121. Applicant confirms its election to prosecute the invention of Group I, claims 1-32. Therefore, Applicant withdraws claims 33-68 from consideration.

Claim 3 stands objected to because of the misspelling of the word sulfonic. Claim 3 has been suitably amended.

Claims 1, 2, 3, 7, 8, 18 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. (US 2004/0053085) in view of Meltser et al. (US 6,265,092).

The U.S. patent application to Smedley et al. published as US 2004/0053085 on March 18, 2004 was filed on September 12, 2003. The present Applicant filed its US patent application 10/727,813 on December 4, 2003, but claims priority to US provisional patent application 60/431,046 filed on December 4, 2002 (prior to the filing date of the Smedley et al. publication being cited as a reference). The scope of Applicants nonprovisional and parent provisional application is identical. Smedley also includes a priority claim to U.S. provisional application 60/410,581 filed on September 12, 2002. (See copy of US 60/410,581 in the accompanying Information Disclosure Statement). However, the Smedley provisional application does not disclose or support everything in the nonprovisional reference being cited. For example, the examiner cites to recombination catalyst 224, 226 located in the vent 210 or exhaust 212. (See Office Action, page 4; *citing* Figure 3). However, Figure 2 of the provisional application is the most similar to Figure 3 of the nonprovisional, but it does not disclose a recombination catalyst in the "cell stack exhaust air." Accordingly, Applicant asserts that Smedley et al. (US 2004/0053085) is not a proper reference against the present claims because it is not "prior" and that the examiner has not established a *prima facie* case of obviousness. Reconsideration and withdrawal of the rejection is requested.

Furthermore, even if Smedley et al. were a proper reference, the recombination catalyst 224,

226 are not located in flow fields, as asserted by the examiner. Rather, the catalyst is located in the vent 210 and exhaust 212. Accordingly, the recombination catalyst is not located in "a hydrogen-oxygen fuel cell" as claimed. (Claim 1, Preamble). While a preamble is not always a limitation, the Applicant has clearly claimed a fuel cell "comprising" a number of elements, including "a hydrogen distribution system", "an oxygen distribution system", and "a hydrogen-oxygen recombination catalyst." These elements are part of the fuel cell.

Smedley et al. does not disclose a fuel cell *comprising* a hydrogen distribution system or a recombination catalyst. In fact, Smedley teaches "a container having therein a non-hydrogen fuel." (Smedley et al., page 1, paragraph [0008], line 4).

Further still, Smedley et al. teaches that "[a]t least one source of oxygen can be connected to the container to supply oxygen to react with any hydrogen present in the container." (Smedley et al., page 5, paragraph [0042], lines 1-3). Accordingly, Smedley et al. intentionally introduces oxygen into the container that accumulates hydrogen gas in order to obtain water at the recombination catalyst. This teaches away from the invention of the present claims.

Meltser et al. (US 6,265,092) appears to be cited merely for the teaching of a hydrogen-oxygen cell fuel cell based on a proton exchange membrane. However, Applicant asserts that the examiner has not provides a sufficient motivation for combining these references and that any attempted combination would be untenable. In particular, Smedley utilizes an aqueous electrolyte and relies upon that aqueous electrolyte to provide the fuel to the fuel cell stack. By contrast, the proton exchange membrane of a PEM fuel cell provides a solid electrolyte. A PEM fuel cell does not utilize an aqueous electrolyte at all. Accordingly, the references are incompatible. Reconsideration and withdrawal of the rejection is requested.

The following rejections are being addressed collectively:

Claims 4 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Meltser et al. (US 6,265,092) in view of Smedley et al. (US 2004/0053085).

Claims 6, 10 and 11, 21, 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. in view of Meltser et al. and further in view of Kurzweil et al. (US 5,955,215).

Claims 8, 10, 11, 19 21, 22 stand rejected under 35 U.S. C. 103(a) as being unpatentable over Smedley et al. (US 2004/0053085 in view of Meltser et al. and further in view of Kurzweil et al (US 5,955, 214).

Claims 8 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. (US 2004/0053085) in view of Meltser et al. and further in view of Buzzelli et al. (US 5,563,004).

Claims 9 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. (US 2004/0053085) in view of Meltser et al. and further in view of Buzzelli et al (US 5,563,004).

Claims 12, 13, 23 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. (US 2004/0053085) in view of Meltser et. and further in view of Buzzelli et al.

Claims 14, 16, 25 and 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al., Meltser et al., Buzzelli et al. and further in view of Cisar et al. (US 2003/0003343).

Claim 29 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. in view of Meltser et al.

Claims 30, 31 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. in view of Meltser et al. (as discussed above for claim 1).

Claims 31 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smedley et al. in view of Meltser et al. and further in view of Oyanagi et al. (US 6,986,962).

The foregoing ten rejections are each based upon the combination of Smedley et al. and Meltser et al. Applicant reasserts the remarks made above regarding these references and how the claims are distinct from these references. Accordingly, Applicant asserts that the foregoing rejections also do not establish a *prima facie* case of obviousness. Reconsideration and withdrawal of the rejections is requested.

In the event there are additional charges in connection with the filing of this Response, the Commissioner is hereby authorized to charge the Deposit Account No. 50-0714/LYNN-0165 of the firm of the below-signed attorney in the amount of any necessary fee.

Respectfully submitted,

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